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CLAIMS:

What is claimed is:

1. A method of operating an implantable medical device (IMD), comprising:
 - positioning a first sonomicrometer crystal at a first location relative to a heart;
 - positioning a second sonomicrometer crystal at a second location relative to the heart;
 - determining the distance between the first and second sonomicrometer crystals; and
 - adjusting the operation of the IMD as a function of the determined distance.
2. The method of claim 1, wherein the IMD comprises an implantable pacing system, and further comprising:
 - delivering a pacing pulse to the heart; and
 - adjusting a parameter of the delivered pacing pulse as a function of the determined distance.
3. The method of claim 1, wherein the IMD comprises an implantable pacing system, and further comprising:
 - delivering a pacing pulse to the first heart chamber to elicit a contraction of the heart chamber;
 - determining whether a series of measured distances represents the contraction; and
 - adjusting a pacing energy of succeeding delivered pacing pulses to elicit the contraction upon delivery of each pacing pulse.
4. An apparatus for use in providing therapy to a heart, comprising:
 - a sensor to measure at least one distance measurement in the heart;

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a delivery circuit coupled to the sensor to deliver a first pacing pulse to a first location in the heart, to deliver a second pacing pulse to a second location in the heart, and to control time of delivery of at least one of the first and second pacing pulses based on the at least one distance measurement.

5. The system of claim 4, wherein the sensor comprises:
a first sonomicrometer crystal disposed at a first location of the heart; and
a second sonomicrometer crystal disposed at a second location of the heart.